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ABSTRACT

The accounting cluster demonstration project conducted at Aloha High School in the Beaverton, Oregon, school district developed a model curriculum for high school accounting. The curriculum is based on interviews with professionals in the accounting field and emphasizes the use of computers. It is suitable for use with special needs students as well as regular vocational education students. This guide was created to help persons who adopt the accounting cluster curriculum to understand the background of the curriculum and to adapt it to the needs of their schools. Following an introduction to the program, sections II through VIII of the guide provide the following information: selecting a base for program improvement, identifying curriculum content, developing the curriculum, developing the delivery system, field testing curriculum and delivery systems, establishing curriculum and delivery systems, and disseminating products. Extensive appendixes contain sampling information, a management interview guide, a task inventory format, a management information summary, a summary of the accounting task inventory, a computer survey instrument, matrixes for curriculum analysis by course and by grade level, a student performance skills card, a program assessment guide, a matrix for curriculum analysis of the delivery system, and information on serving disadvantaged and handicapped students in accounting. (KC)

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ADOPTERS GUIDE

Model Accounting Program

Aloha High School
Beaverton School District

1984

U.S. DEPARTMENT OF EDUCATION
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I. INTRODUCTION

The need for technical update is common to all areas of vocational education. The advent of computer applications have added urgency to that common need. In the accounting field, computerized accounting is becoming a normal part of both large and small businesses. Students that enter accounting jobs will be expected to have some degree of skill in computer applications.

The nature and levels of skill needed for entry employment are often subjects for debate. Unfortunately the debate occurs among people other than employers. For those that hire entry level employees, the skill needs are better defined. Therefore, vocational curriculum must consider the inputs of the work place if it is to have credibility with business and industry. Quality vocational programs will retain close ties with the business and industry base from which they are developed. A quality curriculum is dynamic in nature and continuous updating is necessary for maintaining a current, relevant curriculum.

Once the content of a curriculum is established, consideration must be directed toward the curriculum delivery system. Good content deserves good delivery. The delivery system should be designed to deliver the attitudes, knowledge and skills defined by business and industry as entry level requirements. A quality vocational program will also prepare students for further training. The basics are needed for both jobs and further training in all occupational areas. A delivery system should extend beyond the traditional classroom. It may include cooperative work experience, FBLA, guidance and articulated efforts with other levels of education. A public relations effort is needed to build the program image within the school and community. The students should be assessed on their performance in developing the skills defined for entry employment. In addition to student performance, program quality must be assessed periodically to assure that high standards are being maintained. All of these factors have an impact on the quality of vocational preparation. Without them, good content will not be fully translated into quality offerings.

The accounting program at Aloha High School was selected as a demonstration site by the Oregon Department of Education. The Aloha staff were charged with defining the curriculum content and delivery system for a quality accounting program. This document will offer process guidelines for other schools that wish to begin new or improve existing accounting programs.

II. SELECTING A BASE FOR PROGRAM IMPROVEMENT

Curriculum Content

A sound curriculum base should be selected and maintained throughout the life of a curriculum. The most common bases for curriculum are:

* Textbooks
* State guides
* District, building and course goals
* Task inventory of attitudes, knowledge and skills used to perform a job or closely related jobs
* Teacher developed course outlines

In vocational subjects, most curriculum is based on a task inventory conducted in business and industry. The task inventory process can be conducted at the state or local levels. For example, the Oregon cluster guides are derived from task inventory. Instructors can utilize the task inventory process with their advisory committees if they desire localized curriculum.

Curriculum Delivery System

The delivery system should be tailored to the content to be delivered. All components of a delivery system should be focused toward the course goals. If leadership goals can be accomplished through an FFLA chapter, the organization should be made an integral part of program delivery. On the other hand, if it cannot be directed toward the goals, it will never work as well as it should. Cooperative work experience can be utilized to deliver skills that cannot be taught at the school site. Those skills should be identified in the curriculum content and included as part of a CWE training plan. The delivery system must be comprehensive enough to deliver the content identified by task inventory.

III. IDENTIFYING CURRICULUM CONTENT

Selecting a Representative Sample

A representative sample of business, industry and labor should be contacted. The Oregon Occupational Information Coordinating Council (OOICC) will cut a stratified sample upon request. They will provide sample information by occupation (OES code) or by industry groupings (SIC code).

The sample employers should represent most of the key occupations in accounting. Many local advisory committees would offer a cross-sectional representation of accounting. In those instances, the instructor can conduct the task inventory during a regular meeting.

The size of the sample will depend on the time availability and the exactness of the curriculum effort. Ten respondents will show a definite curriculum pattern. Although more is desirable, ten responses will certainly help in the validation of a curriculum. A sample breakdown is shown as Appendix A.

Conducting the Management Interviews

Managers have good insight into the needs of entry level employees. General information can be obtained through short interviews (1/2 hour) with owners or managers of business firms. This process also helps in building partnerships between business and the school. The managers can be asked to discuss skills levels needed at their firm. In addition, the interviewer can evaluate their willingness to cooperate with the school on future cooperative ventures. For example, are the managers willing to serve on an advisory committee; talk with individual students about accounting careers; or provide a CWE training site? A sample oral interview guide is shown in Appendix B.

Conducting the Task Inventory

During the management interviews, the interviewer should ask the manager for cooperation with the task inventory. Will they allow a few of their employees to respond to the task checklist? The blank checklists should be left with a stamped, return addressed envelope. The checklists should be coded by numbers to identify the firm and the specific job of persons that will be responding. Most managers of business and industry are cooperative in meeting such a request.

Other options include telephone contact followed by a mailout of the checklists. The response will be less than that where personal interviews were made. The importance of personal contact cannot be overemphasized. If time is not available for personal interviews, the task inventory can be completed through the advisory committee members. The members and their employees should provide an adequate number of responses. An accounting task checklist format is shown in Appendix C.

Summarizing Data from Business and Industry

Management interviews should be synthesized into short statements of findings. The data from several firms can be displayed in a matrix format. A reader should be able to scan the summary matrix for quick information. Management interviews collect general information whereas the task inventory collects specific information. A summary matrix format sheet is found as Appendix D.

The task inventory responses are tallied and recorded by the number of employers that rated each task statement. If over 1/3 of the employers responded that a task was essential, that task was checked as a cluster or core task. The cluster tasks identify the curriculum content. A task inventory summary for accounting is found as Appendix E of this guide.

IV. DEVELOPING THE CURRICULUM

Program Goals

The overall program goals should reflect a total program. The program may involve several classes including typing, office machines, computer literacy. All of the attitudes, knowledge and skills for entry level into accounting should be covered in the program goals.

The program goals can be easily developed from the duty areas of the task inventory summary. The program goals, course goals and learning activities are found in the cluster curriculum guide developed during this project.

Course Goals

Course goals can be easily derived from the task statements that are designated as cluster tasks. They will fall under the program goal developed from the corresponding duty statement. Course goals are part of the cluster guide.

Learning Activities

Once the program and course goals have been refined, it is time to develop learning activities for each course goal. A group of accounting teachers can develop learning activities during brainstorming sessions. Collectively, instructors can identify a diverse set of learning activities for delivery of the curriculum content. The learning activities are also shown in the cluster curriculum guide.

Resources

Textbooks were measured against the course goals to determine which edition would best meet the needs of the program. Supplementary materials were identified for filling the gaps between textbooks and course goals. A resource list is included in the cluster curriculum guide.

Software resources are more difficult to identify and evaluate. A survey of other accounting programs was made and summarized. The survey provided evaluations of commonly used accounting software. Because of the time consuming nature of software evaluation, instructors must depend upon field evaluations by other instructors. For those teachers that might wish to conduct their own survey to update computer and software resources, an example survey is shown as Appendix F of this guide.

V. DEVELOPING THE DELIVERY SYSTEM

Classes

Several classes will be involved in delivery of the goals for accounting. A goal may be introduced in one class and reinforced in another class. The assignment of course goals to specific classes is simplified by the use of a curriculum analysis matrix. The matrix designates responsibility for the fulfillment of each course goal. The curriculum analysis matrix is included as Appendix G of this guide.

Articulation Between Levels

Many districts sequence curriculum from grades 7 - 12 or K - 12. A matrix can be used to plan the involvement of other grade levels in meeting the course goals. For example, computer literacy and keyboarding are critical skills in accounting. These are often taught in lower grade levels. The matrix arrangement in Appendix H allows articulation sequences to be simply displayed. This matrix shows the results of the survey with Portland Community College and Portland State University.

Student Performance Assessment

Program quality standards mandate a rigorous assessment of student performance. If the curriculum is based on entry level skills, a students performance should be based on achieving skills proficiency. A student skills card, based on task inventory, helps to relate student performance to job requirements. A copy of the accounting skills card is shown in Appendix I. The skills record will be checked off by the instructor according to the students level of proficiency. The skill card becomes a record that can be presented to employers as a part of a job application.

Program Assessment

Self-assessment must be a continuous process if program quality is to be maintained. Updates are necessary for quality. Until self-assessment is made, the program will remain status quo, leaving no room for change to occur. A formal assessment guide will help an instructor to view the improvement needs for their programs. The guide can also be used by advisory committees and external assessment teams. A copy of the program assessment guide is shown as Appendix J.

Other Program Components

Vocational programs use other program components in meeting the course goals. Cooperative work experience, FBLA and guidance are needed in the delivery process. Some instructors are able to integrate these components into their instructional plans. A good strategy is to assign course goal responsibility according to where it should be delivered. A matrix that shows classroom, lab, CWE, FBLA, and guidance in relation to course goals is helpful. Each goal is designated according to its logical delivery system. This matrix for accounting is included as Appendix K.

VI. FIELD TESTING CURRICULUM AND DELIVERY SYSTEM

Implement

Curriculum content does not change greatly from year to year. The basic principles of accounting remain somewhat constant. Computer applications in accounting do represent a change. The instructors must have staff development to prepare them for computerized accounting. A new curriculum should be field tested for a full school year.

Monitor

The implementation process should be monitored closely during the first year. Sometimes new curriculum is full of frustration. There may be a tendency to discard important segments of the curriculum because of the newness and frustration. A monitor should remain above the frustration level in order to view the implementation process in an objective manner. Support, understanding and encouragement are needed during the implementation. That should be the role of the monitor.

Evaluate

Formative evaluation should be collected on the implementation process. Periodically the instructors and program managers should review the formative evaluations and make needed modifications in the implementation process.

Revise

Curriculum revisions should be made immediately upon completion of a unit of instruction. The instructor can make the changes easier at this point because the details of the content will be fresh in mind. At the end of the school year, further revisions may be needed to properly balance the content within the timeframes for instruction.

VII. ESTABLISHING CURRICULUM AND DELIVERY SYSTEMS

Establish in Other District Schools

The field testing at one school site should be completed in one year. After curriculum and methods are revised, other schools within the district can implement the curriculum into their programs. It is advantageous to involve all instructors in the developmental phases of the project. That involvement serves as an inservice to prepare staff from the other schools.

Use Revised Products

The revised curriculum guide, assessment guide and student skills record will form the basis of the implementation process. The curriculum guide is the blueprint for instructional delivery. A program assessment guide allows the instructor and others to evaluate the status of the implementation process. The student skills record will serve to evaluate the effectiveness of the revised curriculum. If all three instruments are utilized regularly and honestly, the program can be solidly established in all schools of a district with uniform instructional quality.

VIII. DISSEMINATING PRODUCTS

Dissemination

The developmental site has finalized a number of products. These products are available to all Oregon schools that desire to improve their accounting programs. The products of the project will be disseminated through state level presentations and visits to Aloha High School.

Cluster Curriculum Guide

A state cluster curriculum guide is one product for dissemination. The course goals of this guide are based on management interviews and a task inventory of accounting occupations. The cluster guide will be disseminated through the Oregon Department of Education specialist for accounting instruction.

Adopters Guide

This document is an adopters/adapters guide for others that wish to implement a task based curriculum. All of the process documents are attached as appendices to this guide. This guide will be disseminated through the Oregon Department of Education specialist for accounting instruction.

Program Assessment Guide

A program assessment guide was developed at the developmental site. It was tested by instructors during assessments of the developmental program. The program assessment guide is included as Appendix J.

Student Skills Card

A measurement of proficiency levels of student performance has been developed about the entry skill requirements. This document will become a part of student performance assessment. Additionally, the skills record will be part of a job portfolio of individual students. The skills record is shown in Appendix I.

Promotions Kit

Another product of this project is a promotions kit for accounting. This kit consists of a tape-slide presentation for parents, teaching staff, counselors and students. A promotional brochure is another portion of the kit. Also, the kit will contain program information flyers. The promotional kit can be obtained through the Oregon Department of Education accounting program specialist or a regional career and vocational education coordinator, located in your area Education Service District (ESD).

IX. APPENDICES

A. Sampling Information

B. Management Interview Guide

C. Task Inventory Format (Front page only)

D. Management Information Summary (Format only)

E. Summary of Accounting Task Inventory

F. Computer Survey Instrument

G. Matrix -- Curriculum Analysis by Courses Offered

H. Matrix -- Curriculum Analysis by Grade Levels

I. Student Performance Skills Card

J. Program Assessment Guide

K. Matrix -- Curriculum Analysis of Delivery Systems

L. Serving Disadvantaged and Handicapped Students in Accounting

APPENDIX A

KEY OCCUPATIONS EMPLOYMENT DATA

OES CODE	OCCUPATION	1983 PROJECTED EMPLOYMENT	1983 PROJECTED AVERAGE OPENINGS
61307	Bookkeeper, Hand	14,894	901
61301	Accounting Clerk	11,437	638
25401	Accounts & Auditors	7,196	403
61351	Payroll and/or Timekeeping Clerk	1,927	108
61103	Bookkeeping and Billing Machine Operators	1,445	73
25427	Cost Estimators	1,234	77
61112	Proof Machine Operators	723	37
25534	Tax Preparer	562	29

ACCOUNTING CLUSTER SUMMARY

Accounting	10,217	565
Bookkeeping	28,258	1,647
Machine Billing and Bookkeeping	2,193	111

DESCRIPTIONS OF OES OCCUPATIONS

61307 **Bookkeeper, Hand**

Keeps records of financial transactions of establishment or keeps one section or set of financial records.

61301 **Accounting Clerk**

Performs a variety of routine calculating and posting duties to accomplish accounting. May perform typing.

25401 **Accountants and Auditors**

Examines, analyzes and interprets accounting records for the purpose of giving advice or advising on systems of recording costs or other financial and budgetary data. Exclude tax preparers who are not professional accountants.

61351 **Payroll and/or Timekeeping Clerk**

Computes wages and posts wage data to payroll records and/or keeps a daily record showing time of arrival and departure from work of employees. Computes earnings from timesheets and work tickets, using calculator. Operates posting machine to compute and subtract deductions. Enters net wages on earnings record card, check stub, and payroll sheet.

61103 **Bookkeeping and Billing Machine Operator**

Operates special billing machines, generally a combination typing and adding machine, to prepare statements, bills, and invoices, or operates bookkeeping machines to copy and post data, make computations, and/or compile records of transactions.

25534 **Tax Preparer**

Prepares tax returns for individuals or small businesses. May work in office for established tax return firm. Does not have the background or responsibilities of an accredited accountant.

61112 **Proof Machine Operator**

Sorts, records and proves records of bank transactions, such as checks, deposit slips, and withdrawal slips, using proof machine.

25427 **Cost Estimator**

Prepares costs and work completion estimates for engineering contract bids. Computes costs estimates of raw materials, purchased equipment and subcontracted work and labor.

PERCENTAGE DISTRIBUTIONS BY SIC GROUPS

KEY OCCUPATION	FOUND IN # INDUSTRIES	PERCENT OF TOTAL EMPLOYMENT	MAJOR SIC GROUPS AND PERCENTAGES
Bookkeeper, Hand	279	1.3	541 - 2.4% 551 - 2.3% 581 - 3.5% 801 - 3.0% 866 - 2.3% 13.5%
Accounting Clerk	64	1.0	508 - 5.1% 531 - 3.9% 806 - 3.9% 822 - 3.1% 913 - 4.3% 20.3%
Accountants & Auditors	210	.63	243 - 2.5% 382 - 2.2% 893 -28.8% 913 - 2.8% 991 - 3.1% 39.4%
Payroll/Timekeeping Clerk	151	.17	243 - 3.7% 739 - 3.4% 806 - 4.6% 821 - 6.7% 822 - 3.6% 22.0%
Bookkeeping & Billing Machine Operator	83	.12	508 -13.4% 514 - 3.3% 736 - 3.2% 801 -13.4% 893 - 3.2% 36.5%
Cost Estimator	36	.10	154 -18.3% 162 - 8.0% 171 -13.0% 173 - 6.4% 174 - 6.6% 52.3%
Proof Machine Operator	2	.06	601 - 1.1% 602 -98.6% 99.7%
Tax Preparer	3	.05	729 -39.8% 737 - 1.1% 893 -58.9% 99.8%

SAMPLE IDENTIFICATION

OREGON EMPLOYMENT STATISTICS CLASSIFICATION

SAMPLE CODE	OES NO.	OES NAME	NUMBER IN SAMPLE
1	61307	Bookkeeper, Hand	10
2	61301	Accounting Clerk	10
3	25401	Accountants & Auditors	5
4	61351	Payroll and Timekeeping Clerk	10
5	61103	Bookkeeping and Billing Machine Operator	10
6	25427	Cost Estimator	5
7	61112	Proof Machine Operator	5
8	25534	Tax Preparer	5
		TOTAL	60

SAMPLE IDENTIFICATION

STANDARD INDUSTRIAL CLASSIFICATION

SAMPLE CODE	SIC NO.	SIC NAME	NUMBER IN SAMPLE
1	154	General Building Contractors	1
2	162	Heavy Construction	1
3	171	Plumbing, Heating & Air Conditioning	1
4	173	Electrical Work	1
5	174	Masonry, Stonework, Tile	1
6	243	Millwork, Veneer, Plywood	1
7	382	Measuring & Controlling Instruments	2
8	508	Machinery, Equipment & Supplies	4
9	514	Groceries and Related Products (Wholesale)	1
10	531	Department Stores	2
11	541	Grocery Stores	2
12	551	Motor Vehicle Dealers	2
13	581	Eating and Drinking Places	3
14	602	Commercial Banks	4
15	729	Miscellaneous Personal Services	2
16	736	Personnel Supply Services	1
17	739	Miscellaneous Business Services	1
18	801	Offices of Physicians	4
19	806	Hospitals	1
20	821	Elementary-Secondary Schools	1
21	822	Colleges, Universities, Community Colleges	3
22	866	Religious Organizations	2
23	893	Accounting, Auditing, Bookkeeping Services	13
24	913	Executive and Legislative Offices	4
25	991	All Other Federal Employment	2
		TOTAL	60

APPENDIX B

NO._____

MANAGEMENT INTERVIEW GUIDE

1. Which of these job titles are represented in your firm? (Show person being interviewed a list of OES job titles in accounting.) List local job titles if different from OES.

2. How many employees in your firm have previous training in accounting and/or bookkeeping?

3. Which of the job titles are available to trained high school graduates? In other words, which jobs are considered to be entry level positions?

4. Which jobs require training for purposes of job advancement and/or retention?

5. Where have most of your employees received their training in accounting/ bookkeeping?

   High School _____
   Community College _____
   University _____
   Private Vocational School _____

6. Do people that come to work in your firm seem to be deficient in certain skill areas? List:

7. Which communication skills are critical for successful employment in accounting and bookkeeping? Check:

   Read _____ Speak _____
   Write _____ Listen _____
   Analyze _____ Other _____

8. What personal traits (employability skills) are most important for successful employment in your firm? i.e.

   Getting to work on time _____
   Getting along with others _____
   Responsibility _____
   Others _____

9. To what extent does your firm offer training for upgrading and updating skills of your employees?

10. If Aloha High School develops an accounting curriculum that is based on the needs of business and industry, would your firm be willing to hire qualified high school graduates into entry-level positions?

    Identify restrictions and constraints.

11. In high school accounting programs what should we be emphasizing the most? Technical skills or related skills such as communications and mathematics.

12. What are the products and/or services of your firm?

13. Does your "crystal ball" forsee new and emerging technologies in accounting that should be considered in a curriculum?

    a) Materials:

    b) Equipment:

    c) Processes:

14. Will new jobs be created as a result of changing technology?
    If yes, please describe the new jobs.

15. What types and brands of equipment are used by your firm to perform accounting and bookkeeping jobs?

    Typewriters _____
    Bookkeeping Machines _____
    Computers _____
    Proof Machine _____
    Ten Key _____
    Calculator _____
    Other _____

16. Would you be interested in providing further assistance toward helping the schools upgrade their accounting cluster curriculum?
    If yes, specify:

    _____ Allow employees to respond to task inventory.
    _____ Serve on an advisory group to verify skills to be included in curriculum.
    _____ Respond to task analyses checklist sent through the mail.
    _____ Allow a student to observe your employees at work.
    _____ Sponsor a work experience student.
    _____ Serve as a resource speaker to accounting classes.

IF EMPLOYER SHOWS POSITIVE ATTITUDE TOWARD HELPING, ASK TO LEAVE TASK INVENTORY CHECKLISTS FOR EMPLOYEES TO COMPLETE AND RETURN.

TASK INVENTORY CHECKLIST
Example Format Page Only

NO. _____

LISTED BELOW ARE THE DUTIES AND TASKS THAT ARE COMMONLY PERFORMED IN THE FIELD OF ACCOUNTING. PLEASE CHECK THOSE TASKS THAT ARE NEEDED IN THE PERFORMANCE OF YOUR JOB. ADD ANY TASKS WHICH MAY BE MISSING FROM THIS INVENTORY. BLANK SPACES ARE PROVIDED FOR WRITE-INS.	CHECK	COMMENTS
A. OPERATE BUSINESS MACHINES		
1. Electronic calculator		
2. 10-Key adding machine		
3. Bookkeeping posting machine		
4. Computer/computer on-line equipment		
5. Keypunch/coding equipment		
6. Card sorter		
7. Typewriter		
8. Photo-copy machine		
9.		
10.		
11.		
12.		

MANAGEMENT INTERVIEW SUMMARIES
ACCOUNTING CLUSTER MODEL
ALOHA HIGH SCHOOL

Name, Address, Contact, Telephone	Sample No.	(1) Types of Jobs	(2) Number Employed Requiring Previous Training	(3) Job Titles Available for Job Entry	(4) Positions Requiring Training for Advancement or Retention	(5) Where Employees Receive Training	(6) Technical Skill Deficiency	(7) Communication Skills Needed	(8) Employability Skills Needed
Barnard & Kinney 10125 SW Beaverton-Hillsdale Hwy Beaverton, OR 97005 Tel: 646-2123	1	---	2-3	All	None Some retraining in computers will be required.	Community College	All are long term employees	Grammar Telephone	Flexibility to do more than one job
Sorrento Construction 4700 SW Watson Beaverton, OR 97005 Tel: 643-9602	2	Comptroller	1	None	---	University (Masters Degree)	Math Reading	Read Write Analyze Listen Telephone	Personality Appearance
L.H. Cobb 21305 SW Koeler Beaverton, OR 97005 Tel: 649-5661	5	Bookkeeper Accounting Clerk Accountants & Auditors Payroll & Time-keeping Clerks Bkkg & Billing Machine Operators Cost Estimators	1	Payroll Billing Collections	On-the-job	High School Community College	Math	Follow directions Legible writing	Ambition to rise above average
Louisiana-Pacific Corp 12655 SW Center #475 Beaverton, OR 97005 Tel: 643-4861	6	Accounting Clerks Accountants Payroll & Time-keeping Clerks Tax Preparer	CPA's require college degrees Lower level are promoted within	Accounting Clerk Accounting Supervisor	Accounting Trainer Accounting Supervisor	University-CPA's High School-Clerks	Not hired without skill	Follow directions Ask clear questions	Hard working Motivated Work without direct supervision

APPENDIX E

TASK INVENTORY SUMMARY

REPRESENTING THE KEY OCCUPATIONS
OF ACCOUNTING IN THE BEAVERTON AREA

CONDUCTED BY ACCOUNTING INSTRUCTORS
of Aloha, Beaverton and Sunset High Schools

February 1983

TASK INVENTORY (BY OES CODE) Cluster tasks identified when 1/3 (13) or more of respondents used task in performance of the job.	OREGON EMPLOYMENT STATISTICS CODE (OES)								
	Bookkeeper, Hand	Accounting Clerk	Accountants & Auditors	Payroll & Timekeeping Clerk	Data Entry Clerk	Uncoded Inventories	Advisory Committee	Cluster Task	Value Index
	1	2	3	4	5	6	7		
A. OPERATE BUSINESS MACHINES									
1. Electronic calculator	X	X		X		X	X	X	33
2. 10-Key adding machine	X		X	X		X	X	X	23
3. Bookkeeping posting machine					X				4
4. Computer/computer on-line equipment	X	X	X		X	X	X	X	28
5. Keypunch/coding equipment									7
6. Card sorter									2
7. Typewriter	X	X	X	X	X	X	X	X	37
8. Photo-copy machine	X	X	X	X	X	X	X	X	36
B. CALCULATE									
1. Add, subtract, multiply & divide whole numbers.	X	X	X	X	X	X	X	X	38
2. Decimals	X	X	X	X		X	X	X	35
3. Fractions	X	X	X	X		X	X	X	26
4. Percentages	X	X	X	X		X	X	X	36
5. Allocations	X	X	X			X	X	X	22
6. Markups, Markdowns	X						X		9
7. Discounts	X		X				X	X	20
8. Sales tax	X								7
9. Commissions	X								9
10. Interest	X		X			X	X	X	19

TASK INVENTORY (BY OES CODE)	OREGON EMPLOYMENT STATISTICS CODE (OES)								
	Bookkeeper, Hand	Accounting Clerk	Accountants & Auditors	Payroll & Timekeeping Clerk	Data Entry Clerk	Uncoded Inventories	Advisory Committee	Cluster Task	Value Index
	1	2	3	4	5	6	7		
C. COMMUNICATE									
1. Write legibly	X	X	X	X	X	X	X	X	36
2. Spell, punctuate, edit	X	X	X	X		X	X	X	32
3. Use business vocabulary	X	X	X	X		X	X	X	34
4. Follow instructions	X	X	X	X	X	X	X	X	38
5. Give instructions	X	X	X	X		X	X	X	29
6. Offer feedback to others	X	X	X	X		X	X	X	35
7. Compose memos and letters		X	X	X		X	X	X	28
8. Complete forms	X	X	X	X	X	X	X	X	35
9. Read instructions	X	X	X	X	X	X	X	X	37
10. Listen effectively	X	X	X	X	X	X	X	X	38
11. Use appropriate telephone skills	X	X	X	X	X	X	X	X	37
12. Use body language effectively	X	X	X			X	X	X	26

TASK INVENTORY (BY OES CODE)	OREGON EMPLOYMENT STATISTICS CODE (OES)								
	Bookkeeper, Hand	Accounting Clerk	Accountants & Auditors	Payroll & Timekeeping Clerk	Data Entry Clerk	Uncoded Inventories	Advisory Committee	Cluster Task	Value Index
	1	2	3	4	5	6	7		
D. USE DATA PROCESSING IN ACCOUNTING/BOOKKEEPING									
1. Understand function and role in business	X	X	X	X		X	X	X	32
2. Understand limitations and capabilities	X	X	X	X		X	X	X	31
3. Understand structure of data processing systems	X	X	X	X		X	X	X	26
4. Use vocabulary of data processing	X	X	X	X	X	X	X	X	25
5. Understand data file construction	X	X	X	X			X	X	20
6. Understand machine language			X	X				X	14
7. Understand function of assembly language									2
8. Understand programming language	X								9
9. Understand commands, executable and non-executable statements	X	X	X					X	15
10. Understand stages in processing data	X		X	X		X	X	X	22
11. Understand binary coding									3
12. Write simple programs									5
13. Flowchart logical solutions to problems									11
14. Operate teletype/data terminal	X	X	X		X	X	X	X	21
15. Correct input errors	X	X	X	X		X	X	X	28
16. Input numerical data	X	X	X	X	X	X	X	X	30
17. Convert data to coding schemes	X			X					10
18. Assemble and arrange data for computer processing	X	X	X	X			X	X	24
19. Operate storage medium - disk/tape with terminal	X	X	X					X	15
20. Operate modem									3

TASK INVENTORY (BY OES CODE)	OREGON EMPLOYMENT STATISTICS CODE (OES)								
	Bookkeeper, Hand	Accounting Clerk	Accountants & Auditors	Payroll & Timekeeping Clerk	Data Entry Clerk	Uncoded Inventories	Advisory Committee	Cluster Task	Value Index
	1	2	3	4	5	6	7		
E. PROCESS ACCOUNTS RECEIVABLE									
1. Prepare inventories	X		X						12
2. Keep receivable control records	X	X	X			X	X	X	23
3. Keep receivable journal	X	X	X				X	X	21
4. Post receivable journal to general ledger	X	X	X				X	X	19
5. Balance receivable control summary with general balance on receivable account	X		X				X	X	19
6. Prepare aged accounts receivable	X		X				X	X	17
7. Reconcile disputes with customers over balance due	X	X	X			X	X	X	23
8. Compute finance charges on past-due accounts	X		X				X	X	14
9. Prepare statements for customers	X	X	X				X	X	19

TASK INVENTORY (BY OES CODE)	OREGON EMPLOYMENT STATISTICS CODE (OES)								
	Bookkeeper, Hand	Accounting Clerk	Accountants & Auditors	Payroll & Timekeeping Clerk	Data Entry Clerk	Uncoded Inventories	Advisory Committee	Cluster Task	Value Index
	1	2	3	4	5	6	7		
F. PROCESS ACCOUNTS PAYABLE									
1. Verify accuracy of invoices received	X	X	X	X		X	X	X	28
2. Clarify invoice discrepancies with vendors	X	X	X	X		X	X	X	28
3. Code invoices	X	X	X	X		X	X	X	26
4. Post control records	X		X				X	X	17
5. Post accounts payable journal	X	X	X			X	X	X	21
6. Compare invoices with monthly statements	X	X	X			X	X	X	22
7. File invoices in paid or unpaid files	X	X	X	X		X	X	X	24
8. Recap accounts payable journal for posting into general ledger	X		X				X	X	17
9. Summarize accounts payable by vendors with aged balances	X		X				X	X	15
10. Post accounts payable to general ledger	X		X				X	X	18
11. Balance accounts payable summary to general ledger balance	X		X			X	X	X	19

TASK INVENTORY (BY OES CODE)	OREGON EMPLOYMENT STATISTICS CODE (OES)								
	Bookkeeper, Hand	Accounting Clerk	Accountants & Auditors	Payroll & Timekeeping Clerk	Data Entry Clerk	Uncoded Inventories	Advisory Committee	Cluster Task	Value Index
	1	2	3	4	5	6	7		
G. MAINTAIN CASH DISBURSEMENT JOURNAL AND/OR CHECKBOOK LEDGER									
1. Record checks in cash disbursement journal	X	X	X				X	X	17
2. Distribute amounts to general ledger accounts	X	X	X	X		X	X	X	23
3. Record payments on control records	X	X	X				X	X	17
4. Prepare checks	X	X	X	X	X	X	X	X	27
5. Record deposits	X		X			X	X	X	23
6. Keep checkbook balance updated	X		X			X	X	X	19
7. Reconcile checkbook balance and bank statement	X		X			X	X	X	21
8. Record bank charges in checkbook	X		X				X	X	15
9. Recap cash disbursement journal for posting to general ledger	X		X				X	X	15
10. Maintain petty cash fund	X		X			X	X	X	16

TASK INVENTORY (BY OES CODE)	OREGON EMPLOYMENT STATISTICS CODE (OES)								
	1 Bookkeeper, Hand	2 Accounting Clerk	3 Accountants & Auditors	4 Payroll & Timekeeping Clerk	5 Data Entry Clerk	6 Uncoded Inventories	7 Advisory Committee	Cluster Task	Value Index
H. MAINTAIN CASH RECEIPTS JOURNAL									
1. Record cash received	X	X	X			X	X	X	26
2. Fill out bank deposit slips	X	X	X			X	X	X	26
3. Distribute deposits to general ledger accounts	X	X	X			X	X	X	22
4. Record deposits in cash disbursement journal	X	X	X				X	X	17
5. Post accounts receivables to control records	X		X				X	X	18
6. Recap cash receipts journal for posting to general ledger	X	X	X				X	X	19

TASK INVENTORY (BY OES CODE)	OREGON EMPLOYMENT STATISTICS CODE (OES)								
	Bookkeeper, Hand	Accounting Clerk	Accountants & Auditors	Payroll & Timekeeping Clerk	Data Entry Clerk	Uncoded Inventories	Advisory Committee	Cluster Task	Value Index
	1	2	3	4	5	6	7		
I. COMPLETE PAYROLL RECORDS									
1. Verify time card approval	X		X	X		X	X	X	18
2. Compute work hours from time cards	X		X	X		X	X	X	21
3. Distribute work hours by account number	X		X	X			X	X	14
4. Compute gross pay	X	X	X	X			X	X	20
5. Compute withholdings from tax charts	X		X	X			X	X	19
6. Compute FICA withholdings	X		X	X			X	X	20
7. Compute PERS withholdings	X		X	X			X	X	14
8. Compute medical withholding	X		X	X			X	X	17
9. Compute net pay	X		X	X			X	X	19
10. Write payroll checks	X		X	X			X	X	18
11. Balance payroll journal	X		X	X			X	X	17
12. Recap payroll journal for posting to general ledger	X		X				X	X	18
13. Code tax forms for distribution to accounts payable journal	X		X					X	14
14. Post state taxes to accounts payable journal	X		X				X	X	15
15. Complete FICA withholding cards	X		X	X			X	X	15
16. Compute Workman's Compensation payable	X		X	X			X	X	16
17. Post Workman's Compensation to accounts payable journal	X		X					X	16
18. Compute state and federal unemployment	X		X	X			X	X	16

TASK INVENTORY (BY OES CODE)	OREGON EMPLOYMENT STATISTICS CODE (OES)								
	1 Bookkeeper, Hand	2 Accounting Clerk	3 Accountants & Auditors	4 Payroll & Timekeeping Clerk	5 Data Entry Clerk	6 Uncoded Inventories	7 Advisory Committee	Cluster Task	Value Index
I. Continued									
19. Fill out unemployment forms	X		X					X	14
20. Maintain employee records	X		X	X		X	X	X	20
21. Prepare and mail W-2 forms	X		X	X			X	X	19

TASK INVENTORY (BY OES CODE)	OREGON EMPLOYMENT STATISTICS CODE (OES)								
	Bookkeeper, Hand	Accounting Clerk	Accountants & Auditors	Payroll & Timekeeping Clerk	Data Entry Clerk	Uncoded Inventories	Advisory Committee	Cluster Task	Value Index
	1	2	3	4	5	6	7		
J. MAINTAIN EQUIPMENT/DEPRECIATION SCHEDULES									
1. Determine appropriate methods for computing depreciation	X		X				X		10
2. Keep updated lists of equipment, additions and deletions			X			X	X	X	14
3. Calculate depreciation for determined life	X		X				X		12
4. Calculate depreciation by year and month	X		X				X		12
5. Recap equipment depreciation schedule			X				X		10
6. Post recap to general ledger			X						9

TASK INVENTORY (BY OES CODE)	OREGON EMPLOYMENT STATISTICS CODE (OES)								
	Bookkeeper, Hand	Accounting Clerk	Accountants & Auditors	Payroll & Timekeeping Clerk	Data Entry Clerk	Uncoded Inventories	Advisory Committee	Cluster Task	Value Index
	1	2	3	4	5	6	7		
K. MAINTAIN GENERAL LEDGER									
1. Post onto general ledger from journal recaps	X		X				X	X	17
2. Run trial balance	X		X				X	X	17
3. Prepare trial balance worksheet	X		X				X	X	15
4. Verify control summaries			X						
a) Account payable	X		X					X	13
b) Account receivable	X		X					X	14
c) Equipment schedules			X						9
5. Reconcile discrepancies between account balances and summary controls	X		X					X	14
6. Calculate balance sheet	X		X				X	X	14
7. Calculate profit and loss statement	X		X				X	X	13
8. Prepare financial statements	X		X					X	14
9. Prepare expense and revenue summaries	X		X				X	X	17
10. Close out expense and revenue accounts	X		X				X	X	14
11. Transfer profit or loss from expense and revenue summary to retained earning account or capital account			X						10

TASK INVENTORY (BY OES CODE)	OREGON EMPLOYMENT STATISTICS CODE (OES)								
	1 Bookkeeper, Hand	2 Accounting Clerk	3 Accountants & Auditors	4 Payroll & Timekeeping Clerk	5 Data Entry Clerk	6 Uncoded Inventories	7 Advisory Committee	Cluster Task	Value Index
L. DEMONSTRATE PERSONAL EMPLOYABILITY SKILLS									
1. Organize time and work	X	X	X	X	X	X	X	X	38
2. Plan employer's job needs		X	X	X		X		X	23
3. Maintain work station	X	X	X	X	X	X	X	X	37
4. Prioritize work	X	X	X	X	X	X	X	X	35
5. Organize and report data	X	X	X	X		X	X	X	35
6. Adapt to new situations	X	X	X	X	X	X	X	X	38
7. Appropriate dress and grooming	X	X	X	X	X	X	X	X	36
8. Businesslike attitude and behavior	X	X	X	X	X	X	X	X	38
9. Respect for time and authority	X	X	X	X	X	X	X	X	36
10. Respect for co-workers	X	X	X	X	X	X	X	X	38
11. Positive and friendly with customers	X	X	X	X	X	X	X	X	37
12. Loyalty	X	X	X	X	X	X	X	X	36
13. Confidentiality	X	X	X	X	X	X	X	X	38
14. Responsibility	X	X	X	X	X	X	X	X	37

TASK INVENTORY (BY OES CODE)	OREGON EMPLOYMENT STATISTICS CODE (OES)								
	1 Bookkeeper, Hand	2 Accounting Clerk	3 Accountants & Auditors	4 Payroll & Timekeeping Clerk	5 Data Entry Clerk	6 Uncoded Inventories	7 Advisory Committee	Cluster Task	Value Index
M. PERFORM RELATED TASKS									
1. Maintain office supplies	X		X			X		X	22
2. Follow office routines	X	X	X	X		X	X	X	30
3. Store and retrieve records by:									
a) alphabetic	X	X	X	X	X	X	X	X	30
b) numeric			X		X	X	X	X	24
c) geographic									4
d) subject	X		X				X	X	14
4. Maintain files									
a) Computer printout records	X	X	X			X	X	X	27
b) Computer tape records									8
5. Use telephone									
a) place calls	X	X	X	X		X	X	X	32
b) receive calls	X	X	X	X		X	X	X	33
c) transfer calls	X	X	X	X		X	X	X	29

APPENDIX F

SURVEY OF ACCOUNTING PROGRAMS

1. Which textbooks are being used to teach:

   Accounting I _____

   Accounting II _____

   Accounting III _____

2. What type of computer hardware is being used:

   Brand _____

   How many K's _____

   Single or Dual Disc _____

   Type Printer _____

   Comments: _____

   _____

3. a) What percentage of instructional time is spent on computer? _____

   b) Do you need more computer time than is now available? _____

4. How many students are enrolled in:

   Accounting I _____

   Accounting II _____

   Accounting III _____

5. Which software packages have you evaluated?

Name of Package	Instructional Unit	Used and Liked	Used and Didn't Like	Purchased Approximate Cost
Example: VisiCalc	Inventory	X		$60

F

6. How many computers are available for accounting classes each period?

7. Where are computers located?
(i.e., accounting classroom, computer center, math department, etc.)

8. Where do students receive keyboarding skills needed for accounting classes?
(i.e., accounting class, typing class, computer class.)

9. Do your computer terminals have both ten-key and typing keyboards?

10. Please make comments on computer applications in accounting that you deem critical for effective instruction. (i.e., constraints, appropriate levels for using computer, etc.)

11. Would you like a summary of the results of this survey?
If yes, please list name and mailing address.

Skills, Knowledges and Attitudes to be Developed T = Teach R = Reinforce	Appropriate Classes for Instruction						
	Personal Typing	Typing 2	Business Machines	Accounting	Accounting Cluster	Work Experience Lab	Other Classes
A. OPERATE BUSINESS MACHINES							
1. Electronic calculator			T	R	R	R	
2. 10-Key adding machine			T	R	R	R	
3. Computer/computer on-line equipment			T	T	R	R	
4. Typewriter	T	R					
5. Photo-copy machine							Office Techniques
B. CALCULATE							
1. Add, subtract, multiply & divide whole numbers.			R	R	R	R	T
2. Decimals			R	R	R	R	T
3. Fractions			R	R	R	R	T
4. Percentages			R	R	R	R	T
5. Allocations			T		R	R	
6. Markups, Markdowns			T			R	
7. Discounts			T	T	R	R	
8. Interest			T		T	R	
C. COMMUNICATE							
1. Write legibly			R	R	R	R	T
2. Spell, punctuate, edit		R	R	R	R	R	T
3. Use business vocabulary	R	R	R	T	R	R	
4. Follow instructions	R	R	R	T	R	R	
5. Give instructions						T	

Skills, Knowledges and Attitudes to be Developed	Appropriate Classes for Instruction						
	Personal Typing	Typing 2	Business Machines	Accounting	Accounting Cluster	Work Experience Lab	Other Classes
6. Offer feedback to others						T	
7. Compose memos and letters		T				R	
8. Complete forms		T				R	
9. Read instructions	T	R	R	T	R	R	
10. Listen effectively	R	R	R	R	R	R	T
11. Use appropriate telephone skills							~~Elementary~~ T ~~Off.Tech.~~
12. Use body language effectively							
D. USE DATA PROCESSING IN ACCOUNTING/BOOKKEEPIN							
1. Understand function and role in business				T	T	R	
2. Understand limitations and capabilities				T	T	R	
3. Understand structure of data processing systems				T	T	R	
4. Use vocabulary of data processing				T	T	R	
5. Understand data file construction							
6. Understand machine language							Computer T
7. Understand commands, executable and non-executable statements							Computer T
8. Understand stages in processing data			T	T	R	R	T
9. Operate teletype/data terminal					T	R	T
10. Correct input errors			T		T	R	T
11. Input numberical data			T		T	R	T
12. Assemble and arrange data for computer processing				T	R	R	T
13. Operate storage medium - disk/tape with terminal					T	R	T

Skills, Knowledges and Attitudes to be Developed	Appropriate Classes for Instruction						
	Personal Typing	Typing 2	Business Machines	Accounting	Accounting Cluster	Work Experience Lab	Other Classes
E. PROCESS ACCOUNTS RECEIVABLE							
1. Keep receivable control records				T	R	R	
2. Keep receivable journal				T	R	R	
3. Post receivable journal to general ledger				T	R	R	
4. Balance receivable control summary with general balance on receivable account				T	R	R	
5. Prepare aged accounts receivable					R	T	
6. Reconcile disputes with customers over balance due					T	R	
7. Compute finance charges on past-due accounts			T	T	R	R	
8. Prepare statements for customers				T	R	R	
F. PROCESS ACCOUNTS PAYABLE							
1. Verify accuracy of invoices received				T	R	R	
2. Clarify invoice discrepancies with vendors					T	R	
3. Code invoices					T	R	
4. Post control records				T	R	R	
5. Post accounts payable journal				T	R	R	
6. Compare invoices with monthly statements					T	R	
7. File invoices in paid or unpaid files				T	R	R	
8. Recap accounts payable journal for posting into general ledger				T	R	R	
9. Summarize accounts payable by vendors with aged balances				T	R	R	
10. Post accounts payable to general ledger				T	R	R	
11. Balance accounts payable summary to general ledger balance				T	R	R	

Skills, Knowledges and Attitudes to be Developed	Appropriate Classes for Instruction						
	Personal Typing	Typing 2	Business Machines	Accounting	Accounting Cluster	Work Experience Lab	Other Classes
G. MAINTAIN CASH DISBURSEMENT JOURNAL AND/OR CHECKBOOK LEDGER							
1. Record checks in cash disbursement journal				T	R	R	
2. Distribute amounts to general ledger accounts				T	R	R	
3. Record payments on control records				T	R	R	
4. Prepare checks				T	R	R	
5. Record deposits				T	R	R	
6. Keep checkbook balance updated				T	R	R	
7. Reconcile checkbook balance and bank statement				T	R	R	
8. Record bank charges in checkbook				T	R	R	
9. Recap cash disbursement journal for posting to general ledger				T	R	R	
10. Maintain petty cash fund				T	R	R	
H. MAINTAIN CASH RECEIPTS JOURNAL							
1. Record cash received				T	R	R	
2. Fill out bank deposit slips				T	R	R	
3. Distribute deposits to general ledger accounts				T	R	R	
4. Record deposits in cash disbursement journal				T	R	R	
5. Post accounts receivables to control records				T	R	R	
6. Recap cash receipts journal for posting to general ledger				T	R	R	
I. COMPLETE PAYROLL RECORDS							
1. Verify time card approval				T	R	R	
2. Compute work hours from time cards			T	T	R	R	

Skills, Knowledges and Attitudes to be Developed	Appropriate Classes for Instruction						
	Personal Typing	Typing 2	Business Machines	Accounting	Accounting Cluster	Work Experience Lab	Other Classes
3. Distribute work hours by account number					T	R	
4. Compute gross pay			T	T	R	R	
5. Compute withholdings from tax charts				T	R	R	
6. Compute FICA withholdings				T	R	R	
7. Compute PERS withholdings					T	R	
8. Compute medical withholding					T	R	
9. Compute net pay			T	T	R	R	
10. Write payroll checks				T	R	R	
11. Balance payroll journal				T	R	R	
12. Recap payroll journal for posting to general ledger				T	R	R	
13. Code tax forms for distribution to accounts payable journal						T	
14. Post state taxes to accounts payable journal				T	R	R	
15. Complete FICA withholding cards						T	
16. Compute Workman's Compensation payable					T	R	
17. Post Workman's Compensation to accounts payable journal				T	R	R	
18. Compute state and federal unemployment				T	R	R	
19. Fill out unemployment forms						T	
20. Maintain employee records				T	R	R	
21. Prepare and mail W-2 forms						T	

Skills, Knowledges and Attitudes to be Developed	Appropriate Classes for Instruction						
	Personal Typing	Typing 2	Business Machines	Accounting	Accounting Cluster	Work Experience Lab	Other Classes
J. MAINTAIN EQUIPMENT/DEPRECIATION SCHEDULES							
1. Keep updated lists of equipment, additions and deletions					T	R	
K. MAINTAIN GENERAL LEDGER							
1. Post onto general ledger from journal recaps				T	R	R	
2. Run trial balance				T	R	R	
3. Prepare trial balance worksheet				T	R	R	
4. Verify control summaries							
a) Account payable				T	R	R	
b) Account receivable				T	R	R	
5. Reconcile discrepancies between account balances and summary controls				T	R	R	
6. Calculate balance sheet				T	R	R	
7. Calculate profit and loss statement				T	R	R	
8. Prepare financial statements				T	R	R	
9. Prepare expense and revenue summaries				T	R	R	
10. Close out expense and revenue accounts				T	R	R	
L. DEMONSTRATE PERSONAL EMPLOYABILITY SKILLS							
1. Organize time and work	R	R	R	R	R	R	
2. Plan employer's job needs						T	
3. Maintain work station	R	R	R	R	R	T	
4. Prioritize work				T	R	R	
5. Organize and report data				T	R	R	

Skills, Knowledges and Attitudes to be Developed	Appropriate Classes for Instruction						
	Personal Typing	Typing 2	Business Machines	Accounting	Accounting Cluster	Work Experience Lab	Other Classes
6. Adapt to new situations					T	R	
7. Appropriate dress and grooming	R	R	R	R	T	R	
8. Businesslike attitude and behavior					T	R	
9. Respect for time and authority					T	R	
10. Respect for co-workers					T	R	
11. Positive and friendly with customers					T	R	
12. Loyalty				T	R	R	
13. Confidentiality				T	R	R	
14. Responsibility				T	R	R	
M. PERFORM RELATED TASKS							
1. Maintain office supplies						T	
2. Follow office routines						T	
3. Store and retrieve records by:							
a) alphabetic							Office Tech. T
b) numeric							Office Tech T
c) subject							Office Tech T
4. Maintain files							
a) Computer printout records					T	R	
5. Use telephone							
a) place calls							Office Tech T
b) receive calls							Office Tech T
c) transfer calls							Office Tech T

Skills, Knowledges and Attitudes for Employment as Determined by Task Inventory	Current Levels of Instruction		
	HIGH SCHOOL	PORTLAND COMMUNITY COLLEGE	PORTLAND STATE UNIVERSITY
A. OPERATE BUSINESS MACHINES			
1. Electronic calculator	X		
2. 10-Key adding machine	X	X	
3. Computer/computer on-line equipment	X		
4. Typewriter	X	X	
5. Photo-copy machine			
B. CALCULATE			
1. Add, subtract, multiply & divide whole numbers.	X	X	
2. Decimals	X	X	
3. Fractions	X	X	
4. Percentages	X	X	
5. Allocations	X	X	X
6. Markups, Markdowns	X	X	X
7. Discounts	X	X	X
8. Interest	X	X	X
C. COMMUNICATE			
1. Write legibly	Reinforce		
2. Spell, punctuate, edit	Reinforce	X	
3. Use business vocabulary	X	X	
4. Follow instructions	Reinforce	X	X
5. Give instructions	Reinforce	X	

Skills, Knowledges and Attitudes for Employment as Determined by Task Inventory	Current Levels of Instruction		
	HIGH SCHOOL	PORTLAND COMMUNITY COLLEGE	PORTLAND STATE UNIVERSITY
6. Offer feedback to others		X	
7. Compose memos and letters	X	X	
8. Complete forms	X	X	
9. Read instructions	Reinforce	X	X
10. Listen effectively	Reinforce	X	X
11. Use appropriate telephone skills	X	X	
12. Use body language effectively	X	X	
D. USE DATA PROCESSING IN ACCOUNTING/BOOKKEEPIN			
1. Understand function and role in business	X	X	X
2. Understand limitations and capabilities	X	X	X
3. Understand structure of data processing systems		X	
4. Use vocabulary of data processing	X	X	
5. Understand data file construction		X	
6. Understand machine language			
7. Understand commands, executable and non-executable statements			
8. Understand stages in processing data	X	X	
9. Operate teletype/data terminal	X	X	
10. Correct input errors	X	X	
11. Input numerical data	X	X	
12. Assemble and arrange data for computer processing	X	X	
13. Operate storage medium - disk/tape with terminal	X	X	

Skills, Knowledges and Attitudes for Employment as Determined by Task Inventory	Current Levels of Instruction		
	HIGH SCHOOL	PORTLAND COMMUNITY COLLEGE	PORTLAND STATE UNIVERSITY
E. PROCESS ACCOUNTS RECEIVABLE			
1. Keep receivable control records	X	X	X
2. Keep receivable journal	X	X	X
3. Post receivable journal to general ledger	X	X	X
4. Balance receivable control summary with general balance on receivable account	X	X	X
5. Prepare aged accounts receivable	X		
6. Reconcile disputes with customers over balance due			
7. Compute finance charges on past-due accounts	X	X	
8. Prepare statements for customers	X	X	
F. PROCESS ACCOUNTS PAYABLE			
1. Verify accuracy of invoices received	X	X	
2. Clarify invoice discrepancies with vendors	X		
3. Code invoices			
4. Post control records	X	X	X
5. Post accounts payable journal	X	X	X
6. Compare invoices with monthly statements		X	
7. File invoices in paid or unpaid files	X	X	
8. Recap accounts payable journal for posting into general ledger		X	
9. Summarize accounts payable by vendors with aged balances			
10. Post accounts payable to general ledger	X	X	X
11. Balance accounts payable summary to general ledger balance	X	X	X

Skills, Knowledges and Attitudes for Employment as Determined by Task Inventory	Current Levels of Instruction		
	HIGH SCHOOL	PORTLAND COMMUNITY COLLEGE	PORTLAND STATE UNIVERSITY
G. MAINTAIN CASH DISBURSEMENT JOURNAL AND/OR CHECKBOOK LEDGER			
1. Record checks in cash disbursement journal	X	X	X
2. Distribute amounts to general ledger accounts	X	X	X
3. Record payments on control records	X	X	X
4. Prepare checks	X	X	
5. Record deposits	X	X	X
6. Keep checkbook balance updated	X	X	
7. Reconcile checkbook balance and bank statement	X	X	X
8. Record bank charges in checkbook	X	X	X
9. Recap cash disbursement journal for posting to general ledger	X	X	X
10. Maintain petty cash fund	X	X	
H. MAINTAIN CASH RECEIPTS JOURNAL			
1. Record cash received	X	X	X
2. Fill out bank deposit slips	X	X	
3. Distribute deposits to general ledger accounts		X	
4. Record deposits in cash disbursement journal		X	X
5. Post accounts receivables to control records	X	X	X
6. Recap cash receipts journal for posting to general ledger	X	X	X
I. COMPLETE PAYROLL RECORDS			
1. Verify time card approval	X	X	
2. Compute work hours from time cards	X	X	

Skills, Knowledges and Attitudes for Employment as Determined by Task Inventory	Current Levels of Instruction		
	HIGH SCHOOL	PORTLAND COMMUNITY COLLEGE	PORTLAND STATE UNIVERSITY
3. Distribute work hours by account number		X	
4. Compute gross pay	X	X	
5. Compute withholdings from tax charts	X	X	
6. Compute FICA withholdings	X	X	
7. Compute PERS withholdings	X	X	
8. Compute medical withholding		X	
9. Compute net pay	X	X	
10. Write payroll checks	X	X	
11. Balance payroll journal	X	X	
12. Recap payroll journal for posting to general ledger		X	
13. Code tax forms for distribution to accounts payable journal			
14. Post state taxes to accounts payable journal	X		
15. Complete FICA withholding cards			
16. Compute Workman's Compensation payable			
17. Post Workman's Compensation to accounts payable journal			
18. Compute state and federal unemployment	X	X	
19. Fill out unemployment forms		X	
20. Maintain employee records	X	X	
21. Prepare and mail W-2 forms		X	

Skills, Knowledges and Attitudes for Employment as Determined by Task Inventory	Current Levels of Instruction		
	HIGH SCHOOL	PORTLAND COMMUNITY COLLEGE	PORTLAND STATE UNIVERSITY
J. MAINTAIN EQUIPMENT/DEPRECIATION SCHEDULES			
1. Keep updated lists of equipment, additions and deletions	X	X	
K. MAINTAIN GENERAL LEDGER			
1. Post onto general ledger from journal recaps	X	X	X
2. Run trial balance	X	X	X
3. Prepare trial balance worksheet	X	X	X
4. Verify control summaries			
a) Account payable	X	X	X
b) Account receivable	X	X	X
5. Reconcile discrepancies between account balances and summary controls	X		X
6. Calculate balance sheet	X	X	X
7. Calculate profit and loss statement	X	X	X
8. Prepare financial statements	X	X	X
9. Prepare expense and revenue summaries	X	X	
10. Close out expense and revenue accounts	X	X	X
L. DEMONSTRATE PERSONAL EMPLOYABILITY SKILLS			
1. Organize time and work	X		
2. Plan employer's job needs			
3. Maintain work station	X		
4. Prioritize work	X		
5. Organize and report data	X	X	

Skills, Knowledges and Attitudes for Employment as Determined by Task Inventory	Current Levels of Instruction		
	HIGH SCHOOL	PORTLAND COMMUNITY COLLEGE	PORTLAND STATE UNIVERSITY
6. Adapt to new situations	X		
7. Appropriate dress and grooming	X	X	
8. Businesslike attitude and behavior	X	X	
9. Respect for time and authority	X	X	
10. Respect for co-workers	X	X	
11. Positive and friendly with customers	X		
12. Loyalty	X	X	
13. Confidentiality	X	X	
14. Responsibility	X	X	
M. PERFORM RELATED TASKS			
1. Maintain office supplies			
2. Follow office routines	X		
3. Store and retrieve records by:			
a) alphabetic	X		
b) numeric	X		
c) subject			
4. Maintain files			
a) Computer printout records			
5. Use telephone			
a) place calls	X		
b) receive calls	X		
c) transfer calls	X		

APPENDIX I

ACCOUNTING SKILLS RECORD

DEVELOPED BY
MODEL ACCOUNTING PROJECT

Beaverton School District
P.O. Box 200
Beaverton, Oregon 97075

INSTRUCTIONS FOR USE

The list of vocational skills/traits was developed from the task analyses of the key occupations in accounting.

LEVEL CODE KEY:

1 - Introductory Level: Can do simple parts of task. Needs to be told/shown how to do most of the task. Needs extremely close supervision.

2 - Minimum Level: Can do most parts of the task. Needs help only with most difficult parts. Needs close supervision.

3 - Average Level: Can do all parts of task. Needs only spot-check of completed work. Meets local demands for speed and accuracy. Needs moderate job entry supervision.

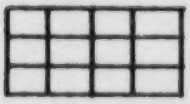
4 - Proficiency Level: Can complete task quickly and accurately. Can direct others in how to do the task. Needs little supervision.

DIRECTIONS: The instructor/employer may write date and initial in appropriate square.

1	2	3	4	COMMUNICATION SKILLS
				- Punctuate and capitalize
				- Apply spelling rules
				- Use correct grammar
				- Use business vocabulary
				- Write legibly
				- Use information and reference resources
				- Read with speed and comprehension
				- Write letters, memorandums
				- Write short business reports
				- Speak in meetings/discussions
				- Listen effectively
				- Use telephone (procedures and voice skills)
				- Proofread and edit

COMMENTS:

1 2 3 4

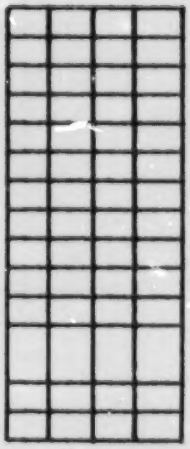


COMMENTS:

COMPUTATIONAL SKILLS

- Perform basic computational skills
- Compute fractions, decimals, percent
- Solve business problems using a 10-key keyboard

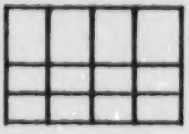
KEYBOARDING



- Use correct keyboarding techniques to operate:
  - Typewriters - wpm_____
  - Microcomputers
  - Word processors - wpm_____
  - Data entry terminals
- Operate 10-key keyboard by touch - cpm____
- Compose at the keyboard
- Complete business documents
  - Business letters and envelopes
  - Inter/intraoffice communications formats
  - Financial, tabulated, and miscellaneous reports
  - Pre-printed business forms
- Perform routine maintenance of equipment/ hardware

COMMENTS:

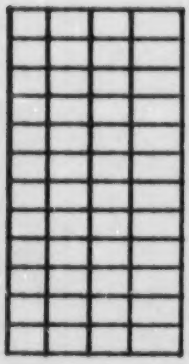
REPROGRAPHICS



- Prepare copy, select materials, operate equipment
- Collate and staple duplicated materials
- Operate microfilm-fiche reader-printer

COMMENTS:

1 2 3 4

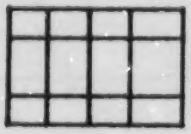


RECORDS MANAGEMENT

- Maintain files
- Establish, supervise and/or maintain files
- Handle classified and confidential files
- Establish a filing system
  - . Alpha/numeric
  - . Subject
- Process, sort, and file business records
  - . Standard documents
  - . Computer printout records
  - . Computer tape records
  - . Magnetic media
  - . Microfiche-film

COMMENTS:

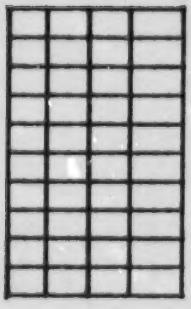
WORK ENVIRONMENT



- Set up personal work station
- Arrange work schedules (lunch, breaks, work-related errands)
- Practice office safety

COMMENTS:

GENERAL LEDGER

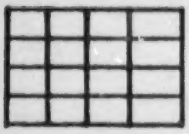


- Journalize transactions
- Post from journal
- Verify control summaries
- Reconcile discrepancies
- Prepare trial balance
- Complete worksheets
- Prepare financial statements
- Journalize adjusting and closing entries
- Prepare post closing trial balance
- Interpret and analyze financial information

COMMENTS:

1 2 3 4

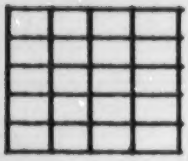
CASH RECEIPTS



- Understand function of cash control
- Record cash received
- Journalize and post cash receipts
- Prepare bank deposit slips

COMMENTS:

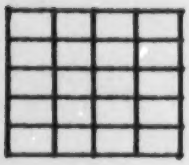
ACCOUNTS RECEIVABLE



- Record sales on account
- Write off uncollectible accounts
- Maintain receivable records
- Prepare statements for customers
- Answer customer questions

COMMENTS:

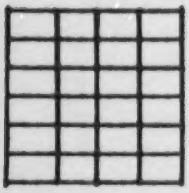
CASH DISBURSEMENT



- Prepare checks
- Journalize cash disbursements
- Record deposits and maintain checkbook
- Reconcile bank statement
- Maintain petty cash records

COMMENTS:

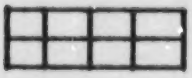
ACCOUNTS PAYABLE



- Verify accuracy of invoices
- Reconcile invoice discrepancies
- Determine due date
- Calculate cash discounts
- Compare invoices with monthly statements
- Maintain payable records

COMMENTS:

1 2 3 4

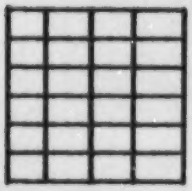


INVENTORY

- Maintain inventory records
- Calculate inventory value

COMMENTS:

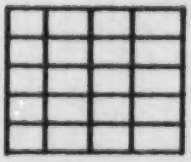
PAYROLL



- Verify time cards
- Compute work hours
- Prepare payroll register
- Journalize payroll entries
- Maintain employee records
- Prepare employer payroll reports

COMMENTS:

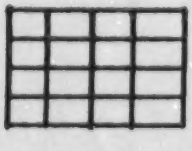
ADDITIONAL ACCOUNTING SKILLS



- Maintain voucher system
- Maintain departmental records
- Maintain cost accounting records
- Maintain plant asset records
- Journalize accruals and prepaid revenues and expense

COMMENTS:

DATA PROCESSING



- Assemble and arrange data
- Operate input /output devices
- Identify and correct errors
- Complete accounting procedures on computer

COMMENTS:

APPENDIX J

ACCOUNTING OCCUPATIONS CLUSTER

ASSESSMENT GUIDE

1984

INTRODUCTION

This assessment guide was developed by the Model Accounting Project at Aloha High School in the Beaverton School District. The criteria statements reflect factors that are deemed essential for quality instruction and overall effectiveness of the accounting program.

This guide can be utilized by an instructor as a self-assessment instrument or by outside assessment teams as guidelines for making program commendations and recommendations. An effort has been made to keep this guide simple and to emphasize the key elements of quality programs.

A rating scale of not applicable and 1 to 4 is provided for each criteria statement. This allows the user to find an overall rating for each of the major program components. Simply total the ratings for each criteria statement within a major component and divide by the number of criteria statements. The component totals can be transferred to a one-page profile that shows the strengths and weaknesses of the program. Profile sheets are useful documents for explaining program needs to advisory committees, administrators and others.

J

ASSESSMENT RATING SCALE

NA - Not Applicable

1 - Critical Need

2 - Major Help or Resources Needed

3 - Some Need

4 - No Additional Support or Resources Needed

PROGRAM ORGANIZATION AND ADMINISTRATIVE SUPPORT:

The success of a cluster program is predetermined by the level of commitment of the school district to that specific program. Commitment is evidenced by the district goals for vocational education, budget support, staffing and class loads for individual programs.

CRITERIA STATEMENTS:

1.	District makes assignments that provide instructors with adequate preparation time.	NA	1	2	3	4
2.	Class sizes allow quality instruction.	NA	1	2	3	4
3.	District provides a budget that is adequate to meet the instructional objectives.	NA	1	2	3	4
4.	Instructors have current short and long range plans for program.	NA	1	2	3	4
5.	Established processes exist for positive communications amongst administrators, instructors, guidance staff, students and community.	NA	1	2	3	4
6.	Instructional objectives are articulated between levels of education. (Junior High School through post secondary.)	NA	1	2	3	4
7.	District shows evidence of commitment to the accounting occupations program.	NA	1	2	3	4

COMMENDATIONS: AVERAGE_____

RECOMMENDATIONS:

ADVISORY COMMITTEE:

The basic purpose of an advisory committee is to assist the accounting instructor in keeping an up-to-date, relevant curriculum. The committee can also be of assistance in providing technical updates for the instructor; advising on equipment purchases; assisting with CWE and placement functions; and providing public relations and promotions for the accounting program. A planned program of work for the committee will help to assure that its expertise is properly utilized for the benefit of the accounting program.

CRITERIA STATEMENTS:

1.	Committee membership represents a cross-section of the key occupations in accounting.	NA 1 2 3 4
2.	Committee meets on a regular schedule with planned agendas.	NA 1 2 3 4
3.	A written, annual program of work defines the objectives and planned activities for the school year.	NA 1 2 3 4
4.	Committee is utilized to keep the curriculum relevant and up-to-date.	NA 1 2 3 4
5.	Committee functions as an advocate of the accounting program.	NA 1 2 3 4

COMMENDATIONS: AVERAGE_____

RECOMMENDATIONS:

STAFFING:

Accounting instructors must be able to move their programs beyond the manual accounting of past years. The transition to computers requires that an instructor be continuously involved in updates of both technical and teaching skills. A good instructor is the result of education, occupational experience and staff development activities to keep current with the accounting field.

CRITERIA STATEMENTS:

1.	Instructor has had relevant occupational experience.	NA	1	2	3	4
2.	Instructor possesses appropriate educational background and training in accounting.	NA	1	2	3	4
3.	Instructor is up-to-date on current trends in accounting.	NA	1	2	3	4
4.	Instructor participates in workshops and conferences.	NA	1	2	3	4
5.	Instructor is actively involved in professional associations and organizations.	NA	1	2	3	4
6.	Staff development and vocational update is provided in the program budget.	NA	1	2	3	4
7.	Instructor utilizes a variety of effective teaching methods.	NA	1	2	3	4

COMMENDATIONS:

AVERAGE_____

RECOMMENDATIONS:

CURRICULUM:

An accounting curriculum should be based on the needs of business and industry. It must reflect the current technology of the accounting field and be delivered in a format that will prepare students to enter accounting careers through further training or at job entry.

CRITERIA STATEMENTS:

1.	Curriculum is derived from task analyses of the key occupations. (State curriculum guides).	NA	1	2	3	4
2.	Curriculum reflects current technology.	NA	1	2	3	4
3.	Curriculum is performance based.	NA	1	2	3	4
4.	Curriculum provides for individual student differences.	NA	1	2	3	4
5.	Curriculum is defined in written scope and sequence that reflects a learning continuum.	NA	1	2	3	4
6.	Curriculum delivery involves a variety of media and methods.	NA	1	2	3	4
7.	Curriculum offers opportunities for special needs students.	NA	1	2	3	4
8.	Curriculum is articulated with exploratory and community college programs.	NA	1	2	3	4
9.	The district and/or program has provisions for review and update of curriculum.	NA	1	2	3	4
10.	The program budget provides funds for curriculum development and update.	NA	1	2	3	4
11.	The program budget provides funds for field trips related to curriculum.	NA	1	2	3	4

COMMENDATIONS: AVERAGE_____

RECOMMENDATIONS:

COMPUTERIZED ACCOUNTING:

Accounting is rapidly becoming a field of computerized applications. Students must be prepared to perform accounting functions on a computer if they are expected to be employable in the accounting field in the future.

CRITERIA STATEMENTS:

1.	Accounting students have access to computers as reflected by the number of computers, location of computers and scheduling of computer use.	NA	1	2	3	4
2.	Accounting students are required to have a knowledge of basic accounting principles prior to receiving assignments in computerized accounting.	NA	1	2	3	4
3.	Assignments in computerized accounting are a planned part of the accounting curriculum.	NA	1	2	3	4
4.	Appropriate software which will reinforce good accounting principles is available for the instructional program.	NA	1	2	3	4
5.	Software is correlated with instructional units.	NA	1	2	3	4

COMMENDATIONS:

AVERAGE_____

RECOMMENDATIONS:

FACILITIES/EQUIPMENT:

A facility must be organized to achieve efficiency in the delivery of curriculum and high quality instruction. Space should be sufficient to allow quality instruction to be delivered to students. All existing space should be organized for maximum utilization.

CRITERIA STATEMENTS:

1.	Facilities are appropriate in size and configuration to accommodate the learning activities.	NA	1	2	3	4
2.	Equipment is comparable to that used in business and industry.	NA	1	2	3	4
3.	Equipment is adequate for class loads.	NA	1	2	3	4
4.	Equipment is arranged in a manner that provides efficiency in the instruction of students.	NA	1	2	3	4
5.	Computers and/or other equipment are readily accessible to students.	NA	1	2	3	4
6.	Budget is provided for maintenance of equipment.	NA	1	2	3	4
7.	Budget is provided for replacement of equipment.	NA	1	2	3	4
8.	Equipment is available for ten-key instruction.	NA	1	2	3	4

COMMENDATIONS: AVERAGE_____

RECOMMENDATIONS:

INSTRUCTIONAL MATERIALS AND SUPPLIES:

Instructional materials and supplies are a basic necessity for quality instruction. Computerized accounting does not eliminate the need for textbooks, workbooks and other supplies. In reality, some supply needs such as computer paper, ribbons, etc., will increase as compared to the traditional accounting program.

CRITERIA STATEMENTS:

1.	Program has adequate supply of up-to-date textbooks.	NA	1	2	3	4
2.	Program has adequate supply of working papers, business simulations, periodicals, newspapers.	NA	1	2	3	4
3.	Program has adequate amounts of general supply items, i.e. paper, computer paper, ribbons.	NA	1	2	3	4
4.	Program has a defined system for replacement of instructional materials and supplies.	NA	1	2	3	4
5.	Program makes effective use of resources available from business.	NA	1	2	3	4

COMMENDATIONS: AVERAGE_____

RECOMMENDATIONS:

COOPERATIVE WORK EXPERIENCE:

Cooperative Work Experience should be available for students in the accounting program. CWE should be based on training plans and supervised by the accounting instructor. A good CWE placement will help the student to relate work experiences with the in-school curriculum. Established guidelines for operating CWE; written training agreements and training plans, and records of student progress are indicators of quality CWE programs.

CRITERIA STATEMENTS:

1.	CWE is operated by a set of written guidelines that define philosophy, objectives and procedures for involving students at training sites.	NA	1	2	3	4
2.	CWE utilizes written training agreements and training plans for each student.	NA	1	2	3	4
3.	Supervision time is provided for instructor to supervise students at training sites.	NA	1	2	3	4
4.	Appropriate insurance coverage is provided for all CWE students.	NA	1	2	3	4
5.	CWE program relates training site experiences with in-school training.	NA	1	2	3	4
6.	Training sites are developed in an organized manner.	NA	1	2	3	4

COMMENDATIONS: AVERAGE_____

RECOMMENDATIONS:

VOCATIONAL STUDENT ORGANIZATION:

The vocational student organization, when included as an integral part of the accounting program, will provide students with an opportunity for leadership development. Student organizations offer training opportunities in decision-making, public speaking, parliamentary procedure, goal setting, and entrepreneurship. A strong chapter is identifiable by a high level of student involvement in local, state and national Future Business Leaders of America. (FBLA).

CRITERIA STATEMENTS:

1.	FBLA is an integral part of the accounting curriculum and is operated as part of regular classes as well as an extra-curricular activity.	NA 1 2 3 4
2.	The majority of accounting students are members of FBLA.	NA 1 2 3 4
3.	FBLA members participate in local business and community affairs.	NA 1 2 3 4
4.	FBLA members participate in district, state and national competitive events.	NA 1 2 3 4
5.	The FBLA Chapter has a planned program of work for reaching the goals of their organization.	NA 1 2 3 4
6.	FBLA is utilized to develop skills, knowledges and attitudes in career development, human relations, leadership and technical competence in accounting.	NA 1 2 3 4
7.	Program budget makes provisions for advisor and student travel to FBLA activities.	NA 1 2 3 4

COMMENDATIONS: AVERAGE_____

RECOMMENDATIONS:

GUIDANCE, PLACEMENT AND FOLLOW-UP:

Students need help in establishing career objectives and assessing their strengths and weaknesses in relation to career options. Educators must assure that the students have been provided with instruction in job search either through the guidance department or within their own class. A vocational program should assist its graduates in making their first steps into jobs or further training. A follow-up procedure helps instructors to evaluate the impact of their instruction in helping students to achieve their career objectives.

CRITERIA STATEMENTS:

1.	The students are provided guidance in the selection of career objectives, self-assessment, and career exploration.	NA 1 2 3 4
2.	Students are provided with instruction on job search techniques, i.e., resume preparation, job interview.	NA 1 2 3 4
3.	Students receive assistance in job placement or placement in advanced training programs.	NA 1 2 3 4
4.	Follow-up (formal or informal) on program completers is conducted on a regular basis.	NA 1 2 3 4
5.	Follow-up findings are utilized in making program revisions.	NA 1 2 3 4

COMMENDATIONS: AVERAGE_____

RECOMMENDATIONS:

COMPLETING THE ASSESSMENT PROFILE

Compute the average rating for each program component by totaling the ratings and dividing by the number of criteria statements. Transfer that figure to the assessment scale on this page. After all points have been located on the assessment scale, connect the points with lines to complete the profile. The profile shows program strengths and weaknesses in a relationship with the total program.

	ASSESSMENT SCALE
PROGRAM ORGANIZATION AND ADMINISTRATIVE SUPPORT	NA . 1 . 2 . 3 . 4
ADVISORY COMMITTEE	NA . 1 . 2 . 3 . 4
STAFFING	NA . 1 . 2 . 3 . 4
CURRICULUM	NA . 1 . 2 . 3 . 4
COMPUTERIZED ACCOUNTING	NA . 1 . 2 . 3 . 4
FACILITIES AND EQUIPMENT	NA . 1 . 2 . 3 . 4
INSTRUCTIONAL MATERIALS AND SUPPLIES	NA . 1 . 2 . 3 . 4
COOPERATIVE WORK EXPERIENCE	NA . 1 . 2 . 3 . 4
VOCATIONAL STUDENT ORGANIZATION	NA . 1 . 2 . 3 . 4
GUIDANCE, PLACEMENT AND FOLLOW-UP	NA . 1 . 2 . 3 . 4

ASSESSMENT RATING SCALE

NA - Not Applicable

1 - Critical Need

2 - Major Help or Resources Needed

3 - Some Need

4 - No Additional Support or Resources Needed

Skills, Knowledges and Attitudes to be Developed 1 = Major emphasis 2 = Secondary emphasis 3 = Further development of skill	Appropriate Systems for Delivery of Instruction					
	Classroom	LAB	FBLA	Work Experience	Guidance System	Other Systems
A. OPERATE BUSINESS MACHINES						
1. Electronic calculator	1	2				
2. 10-Key adding machine	1	2				
3. Computer/computer on-line equipment	1	2				
4. Typewriter	1	2				
5. Photo-copy machine		2		1		
B. CALCULATE						
1. Add, subtract, multiply & divide whole numbers.	1					
2. Decimals	1					
3. Fractions	1					
4. Percentages	1					
5. Allocations	1					
6. Markups, Markdowns	1					
7. Discounts	1					
8. Interest	1					
C. COMMUNICATE						
1. Write legibly	1					
2. Spell, punctuate, edit	1					
3. Use business vocabulary	2			1		
4. Follow instructions	1			2		
5. Give instructions			2	1		

Skills, Knowledges and Attitudes to be Developed	Appropriate Systems for Delivery of Instruction					
	Classroom	LAB	FBLA	Work Experience	Guidance System	Other Systems
6. Offer feedback to others			2	1		
7. Compose memos and letters	1					
8. Complete forms	1					
9. Read instructions	1	3				
10. Listen effectively	1					
11. Use appropriate telephone skills	1					
12. Use body language effectively	1		2			
D. USE DATA PROCESSING IN ACCOUNTING/BOOKKEEPIN						
1. Understand function and role in business	1					
2. Understand limitations and capabilities	1			2		
3. Understand structure of data processing systems.	1					
4. Use vocabulary of data processing	1					
5. Understand data file construction	1					
6. Understand machine language	1					
7. Understand commands, executable and non-executable statements	1					
8. Understand stages in processing data	1			2		
9. Operate teletype/data terminal	1	3		2		
10. Correct input errors	1	3		2		
11. Input numberical data	1	3		2		
12. Assemble and arrange data for computer processing	1	3		2		
13. Operate storage medium - disk/tape with terminal	1	3		2		

Skills, Knowledges and Attitudes to be Developed	Appropriate Systems for Delivery of Instruction					
	Classroom	LAB	FBLA	Work Experience	Guidance System	Other Systems
E. PROCESS ACCOUNTS RECEIVABLE						
1. Keep receivable control records	1	3		2		
2. Keep receivable journal	1	3		2		
3. Post receivable journal to general ledger	1	3		2		
4. Balance receivable control summary with general balance on receivable account	1	3		2		
5. Prepare aged accounts receivable	1	3		2		
6. Reconcile disputes with customers over balance due				1		
7. Compute finance charges on past-due accounts	1	3		2		
8. Prepare statements for customers	3	2		1		
F. PROCESS ACCOUNTS PAYABLE						
1. Verify accuracy of invoices received	1	3		2		
2. Clarify invoice discrepancies with vendors				1		
3. Code invoices	2			1		
4. Post control records	1	3		2		
5. Post accounts payable journal	1	3		2		
6. Compare invoices with monthly statements	1	3		2		
7. File invoices in paid or unpaid files	1	3		2		
8. Recap accounts payable journal for posting into general ledger	1	3		2		
9. Summarize accounts payable by vendors with aged balances	1	3		2		
10. Post accounts payable to general ledger	1	3		2		
11. Balance accounts payable summary to general ledger balance	1	3		2		

Skills, Knowledges and Attitudes to be Developed	Appropriate Systems for Delivery of Instruction					
	Classroom	LAB	FBLA	Work Experience	Guidance System	Other Systems
G. MAINTAIN CASH DISBURSEMENT JOURNAL AND/OR CHECKBOOK LEDGER						
1. Record checks in cash disbursement journal	1	3		2		
2. Distribute amounts to general ledger accounts	1	3		2		
3. Record payments on control records	1	3		2		
4. Prepare checks	1	3		2		
5. Record deposits	1	3		2		
6. Keep checkbook balance updated	1	3		2		
7. Reconcile checkbook balance and bank statement	1	3		2		
8. Record bank charges in checkbook	1	3		2		
9. Recap cash disbursement journal for posting to general ledger	1	3		2		
10. Maintain petty cash fund	1	3		2		
H. MAINTAIN CASH RECEIPTS JOURNAL						
1. Record cash received	1	3		2		
2. Fill out bank deposit slips	1	3		2		
3. Distribute deposits to general ledger accounts	1	3		2		
4. Record deposits in cash disbursement journal	1	3		2		
5. Post accounts receivables to control records	1	3		2		
6. Recap cash receipts journal for posting to general ledger	1	3		2		
I. COMPLETE PAYROLL RECORDS						
1. Verify time card approval	1	3		2		
2. Compute work hours from time cards	1	3		2		

Skills, Knowledges and Attitudes to be Developed	Appropriate Systems for Delivery of Instruction					
	Classroom	LAB	FBLA	Work Experience	Guidance System	Other Systems
3. Distribute work hours by account number	1	3		2		
4. Compute gross pay	1	3		2		
5. Compute withholdings from tax charts	1	3		2		
6. Compute FICA withholdings	1	3		2		
7. Compute PERS withholdings				1		
8. Compute medical withholding				1		
9. Compute net pay	1	3		2		
10. Write payroll checks	1	3		2		
11. Balance payroll journal	1	3		2		
12. Recap payroll journal for posting to general ledger	1	3		2		
13. Code tax forms for distribution to accounts payable journal				1		
14. Post state taxes to accounts payable journal	1	3		2		
15. Complete FICA withholding cards				1		
16. Compute Workman's Compensation payable				1		
17. Post Workman's Compensation to accounts payable journal				1		
18. Compute state and federal unemployment	1			2		
19. Fill out unemployment forms						
20. Maintain employee records	1	3		2		
21. Prepare and mail W-2 forms	1	3		2		

Skills, Knowledges and Attitudes to be Developed	Appropriate Systems for Delivery of Instruction					
	Classroom	LAB	FBLA	Work Experience	Guidance System	Other Systems
J. MAINTAIN EQUIPMENT/DEPRECIATION SCHEDULES						
1. Keep updated lists of equipment, additions and deletions	1	3		2		
K. MAINTAIN GENERAL LEDGER						
1. Post onto general ledger from journal recaps	1	2		3		
2. Run trial balance	1	2		3		
3. Prepare trial balance worksheet	1	2		3		
4. Verify control summaries						
a) Account payable	1	2		3		
b) Account receivable	1	2		3		
5. Reconcile discrepancies between account balances and summary controls	1	2		3		
6. Calculate balance sheet	1	2		3		
7. Calculate profit and loss statement	1	2		3		
8. Prepare financial statements	1	2		3		
9. Prepare expense and revenue summaries	1	2		3		
10. Close out expense and revenue accounts	1	2		3		
L. DEMONSTRATE PERSONAL EMPLOYABILITY SKILLS						
1. Organize time and work	1	2		3		
2. Plan employer's job needs				1		
3. Maintain work station	1	3		2		
4. Prioritize work	1	3		2		
5. Organize and report data	1			2		

Skills, Knowledges and Attitudes to be Developed	Appropriate Systems for Delivery of Instruction					
	Classroom	LAB	FBLA	Work Experience	Guidance System	Other Systems
6. Adapt to new situations	1		3	2		
7. Appropriate dress and grooming	1		3	2		
8. Businesslike attitude and behavior	1		3	2		
9. Respect for time and authority	1		3	2		
10. Respect for co-workers	1		3	2		
11. Positive and friendly with customers			3	1		
12. Loyalty	1		3	2		
13. Confidentiality	1		3	2		
14. Responsibility	1		3	2		
M. PERFORM RELATED TASKS						
1. Maintain office supplies						
2. Follow office routines	2			1		
3. Store and retrieve records by:						
a) alphabetic	1			2		
b) numeric	1			2		
c) subject	1			2		
4. Maintain files						
a) Computer printout records				1		
5. Use telephone	2					
a) place calls	2			1		
b) receive calls	2			1		
c) transfer calls	2			1		

APPENDIX L

SERVING
DISADVANTAGED AND HANDICAPPED STUDENTS
IN ACCOUNTING

SERVING
DISADVANTAGED AND HANDICAPPED STUDENTS IN ACCOUNTING

The field of accounting requires a specific aptitude for working with numerical data. Accounting is a field that students either enjoy or tend to avoid as a career option because of its specific nature. In the past, the accounting jobs have been stereotyped as tedious, monotonous recording of numerical data. Although computerized accounting is changing the basis of the stereotype, the image remains a deterrent to many students. Along with the stereotype is the myth that all accounting majors will become accountants and auditors. This myth has become a barrier to many students--especially the disadvantaged student. Lacking the special aptitudes of a future accountant, these students are discouraged from programs by counselors, teachers, and parents. Some types of accounting jobs do not require such high levels of skill with numerical data. One example might be a bookkeeping and billing machine operator.

The first step toward serving students with special needs is to define the key occupations of accounting by the specific task requirements of each occupation. A task inventory based curriculum defines the requirements of all key occupations. The curriculum is opened to students of varying ability levels through the task analysis process. It is helpful for instructors to go through the task analysis process in order to perceive the opportunities for disadvantaged and handicapped in the accounting field. Management interviews in business and industry coupled with labor market statistics can help clarify the range of job opportunities in accounting.

Teacher attitude is a factor which must be addressed if all students are to be served in a high school accounting program. Many disadvantaged and handicapped students cannot compete in a traditional accounting classroom and are often discouraged from enrolling. Teachers have often viewed accounting as a program for higher ability students, especially those with high aptitude for working with numerical data.

A move toward individualized instruction coupled with an understanding of the task inventory based curriculum will enhance the ability to serve all students. Supplementary instructional package have been identified for use as remedial instruction and are listed in Appendix H, Cluster Guide.

A number of instructional strategies have been identified for working with special needs groups. Those strategies are itemized by the special needs group in relation to the accounting curriculum.

Group	Instructional Strategies
Cultural/Social/ESL	* Field trips to business * Job observations * Movies that show modern office * Temporary work assignments in offices (nonpaid) * Work as aide in classroom * Have guest speakers explain: - Applications - How to dress
Educationally Disadvantaged	* Conduct math drills * Reinforce and individualize reading instruction * Reinforce vocabulary * Use individualized instruction techniques * Strengthen study skills * Develop prerequisite program (record keeping) * Strengthen questioning skills * Monitor understanding of instructions
Economically Disadvantaged	* Make student aware of low-cost clothing * Assist with transportation problems * Conduct wardrobe planning activities * Emphasize budgeting * Assist student in securing paid work experience
Emotionally Disturbed	* Discuss appropriate behavior * Adapt curriculum to eliminate frustration * Give extra review for tests * Coordinate closely with counselor * Learn problem-solving skills
Visually Impaired	* Use large print text * Use magnifying glass * Use large format forms * Provide tape materials * Provide written notes * Coordinate with regional center * Strengthen questioning skills * Monitor understanding of instructions
Hearing Impaired	* Use finger talk * Seat student in front * Make additional reading assignment to cover material missed in lecture * Utilize video instruction * Provide head notes * Coordinate with regional center * Strengthen questioning skills * Monitor understanding of instructions

Much can be accomplished for disadvantaged and handicapped students through a defined guidance process. Counselors must be informed that disadvantaged and handicapped students can, with some limitations, succeed in an accounting program. Otherwise, special needs students may be counseled away from a potential career. This project examined the career guidance implications for special needs students and have provided counselors with information for improved career planning with students.

Offering a record keeping class will enable lower ability students to gain background skills in accounting. By scheduling this class at the same time as accounting, students could be moved from one class to another as their needs become more apparent to the teacher.

This project has attempted to provide for special needs students in the context of a total curriculum rather than as a special project component. Through task analysis based curriculum, increased individualization of curriculum delivery, identified strategies for working with specific types of handicaps and disadvantagements, and an informed guidance staff, all students will be better served. The disadvantaged and handicapped students will be able to enter and succeed in an accounting curriculum if their interest, aptitude, and ability is compatible with accounting subject matter.